

Claims

1. A motor production line for producing, at least, a stator for constituting a motor, comprising:

a press apparatus for forming a stator core by feeding a long steel plate to pass through a plurality of times of press work, and laminating a plurality of pieces of steel plates; and

a stator assembling apparatus for assembling a stator by passing the stator core through a plurality of production steps; wherein,

a stator core conveyer apparatus is arranged between the stator assembling apparatus and the press apparatus to successively and directly convey the stator cores formed by the press apparatus to the stator assembling apparatus.

2. A motor production line according to claim 1, wherein the press apparatus is so constituted as to form the stator core as well as to form a rotor core by laminating a plurality of pieces of steel plates, and the motor production line includes a rotor assembling apparatus for assembling a rotor by passing the rotor core through a plurality of production steps, and a rotor core conveyer apparatus arranged between the rotor assembling apparatus and the press apparatus to successively and directly convey the rotor formed by the press apparatus to the rotor assembling apparatus.

3. A motor production line according to claim 2, wherein the motor production line includes a centralized control unit for exclusively controlling the press apparatus, stator assembling apparatus, rotor assembling apparatus, stator core conveyer apparatus and rotor core conveyer apparatus.

4. A motor production line according to claim 2 or 3, wherein the rotor core conveyer apparatus and the stator core conveyer apparatus are constituted by a common single conveyer apparatus.

5. A motor production line according to any one of claims 2 to 4, wherein a rotor delivery passage for delivering the rotor assembled by the rotor assembling apparatus and a stator delivery passage for delivering the stator assembled by the stator assembling apparatus, meet together to constitute a common delivery passage, and every pair of the rotor and the stator for constituting a motor are delivered simultaneously or consecutively in the back-and-forth direction.

6. A method of controlling the motor production line which includes a press apparatus for forming a rotor core and a stator core by feeding a long steel plate to pass through a plurality of times of press work, and laminating a plurality

of pieces of steel plates, a rotor assembling apparatus for assembling a rotor by passing the rotor core through a plurality of production steps, and a stator assembling apparatus for assembling a stator by passing the stator core through a plurality of production steps, the method of controlling the motor production line comprising the steps of:

accepting a production instruction inclusive of data related to the number N of motors to be produced;

starting the operations of the press apparatus, the rotor assembling apparatus and the stator assembling apparatus after having accepted the production instruction; and

halting the operation of the press apparatus depending upon the production conditions in the rotor assembling apparatus and the stator assembling apparatus; wherein

if the number of the finished rotors assembled by the rotor assembling apparatus is denoted by R_1 , the number of the half assembled rotors by R_2 , the number of the finished stators assembled by the stator assembling apparatus by S_1 and the number of the half assembled stators by S_2 , then, the press halting step halts the operation of the press apparatus when $N \leq R_1 + R_2$ and $N \leq S_1 + S_2$.